Package ‘ROpenCVLite’

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Type Package
Title Helper Package for Installing OpenCV with R
Version 4.90.1
Date 2024-01-20
Maintainer Simon Garnier <garnier@njit.edu>
Description Installs 'OpenCV' for use by other packages. 'OpenCV' <https://opencv.org/> is library of programming functions mainly aimed at real-time computer vision. This 'Lite' version installs the stable base version of 'OpenCV' and some of its experimental externally contributed modules. It does not provide R bindings directly.
License GPL-3
Imports utils, pkgbuild, parallel
SystemRequirements cmake
RoxygenNote 7.3.0
Biarch false
Encoding UTF-8
Depends R (>= 4.0.0)
Suggests covr, knitr, rmarkdown
VignetteBuilder knitr
BugReports https://github.com/swarm-lab/ROpenCVLite/issues
NeedsCompilation no
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ROpenCVLite-package  

ROpenCVLite: A package to install OpenCV within R

Description

This is a utility package that installs OpenCV within R for use by other packages. This Lite version does not contain any of the contributed modules of OpenCV.

Author(s)

Simon Garnier, <garnier@njit.edu>

See Also

Useful links:

- [https://swarm-lab.github.io/ROpenCVLite/](https://swarm-lab.github.io/ROpenCVLite/)
- [https://github.com/swarm-lab/ROpenCVLite](https://github.com/swarm-lab/ROpenCVLite)
- Report bugs at [https://github.com/swarm-lab/ROpenCVLite/issues](https://github.com/swarm-lab/ROpenCVLite/issues)

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defaultOpenCVPath  

Default Install Location of OpenCV

Description

This function returns the location at which OpenCV should be installed by default.

Usage

defaultOpenCVPath()
installOpenCV

Value
A character string.

Author(s)
Simon Garnier, <garnier@njit.edu>

Examples
## Not run:
defaultOpenCVPath()

## End(Not run)

installOpenCV | Install OpenCV

Description
This function attempts to download, compile and install OpenCV on the system. This process will take several minutes.

Usage
installOpenCV(install_path = defaultOpenCVPath(), batch = FALSE)

Arguments
install_path A character string indicating the location at which OpenCV should be installed. By default, it is the value returned by defaultOpenCVPath.
batch A boolean indicating whether to skip (TRUE) or not (FALSE, the default) the interactive installation dialog. This is useful when OpenCV needs to be installed in a non-interactive environment (e.g., during a batch installation on a server).

Value
A boolean.

Author(s)
Simon Garnier, <garnier@njit.edu>

Examples
## Not run:
installOpenCV()

## End(Not run)
isOpenCVInstalled

Check OpenCV Installation

Description
This function checks that OpenCV is installed and accessible.

Usage
isOpenCVInstalled()

Value
A boolean.

Author(s)
Simon Garnier, garnier@njit.edu

Examples
isOpenCVInstalled()
Description

This function returns the configuration options for compiling C/C++-based packages against OpenCV installed by `ROpenCVLite`.

Usage

```r
opencvConfig(output = "libs", arch = NULL)
```

Arguments

- `output` Either 'libs' for library configuration options or 'cflags' for C/C++ configuration flags.
- `arch` architecture relevant for Windows. If NULL, then `R.version$arch` will be used.

Value

A concatenated character string (with `cat`) of the configuration options.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```r
## Not run:
if (isOpenCVInstalled()) {
  opencvConfig()
  opencvConfig(output = "cflags")
  opencvConfig(arch = R.version$arch)
}

## End(Not run)
```
OpenCVPath  
__Install Location of OpenCV__

**Description**

This function returns the location at which OpenCV is installed.

**Usage**

OpenCVPath()

**Value**

A character string.

**Author(s)**

Simon Garnier, <garnier@njit.edu>

**Examples**

```r
## Not run:
OpenCVPath()
## End(Not run)
```

opencvVersion  
__OpenCV Version__

**Description**

This function determines the version of OpenCV installed within R.

**Usage**

opencvVersion()

**Value**

A character string.

**Author(s)**

Simon Garnier, <garnier@njit.edu>
Examples

```r
if (isOpenCVInstalled()) {
  opencvVersion()
}
```

Description

This function removes OpenCV from the system.

Usage

```r
removeOpenCV()
```

Value

A boolean.

Author(s)

Simon Garnier, <garnier@njit.edu>

Examples

```r
## Not run:
installOpenCV()

## End(Not run)
```
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